



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,834	12/12/2001	Jerome Dochez	SUNMP039	7500

25920 7590 03/24/2005

MARTINE PENILLA & GENCARELLA, LLP
710 LAKEWAY DRIVE
SUITE 200
SUNNYVALE, CA 94085

EXAMINER

MATTHEW, AARON D

ART UNIT PAPER NUMBER

2114

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,834

Applicant(s)

DOCHEZ ET AL

Examiner

Aaron D Matthew

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8-10,16 and 17 is/are rejected.
- 7) ☐ Claim(s) 3,4,7,11-15 and 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the arrow drawn from reference number 806 should be extended to properly indicate the "List of Methods Called". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

- On line 21 of page 2, and lines 1, 3, 7, 10 of page 3, there is reference made to "applications 106a-106c". Element 106c was not included in Fig. 1, and the examiner suggests changing said references to read, "applications 106a-106b".
- On lines 13 and 15-17 of page 4, the references to EJB 204 should be changed to read, "EJB 202", to remain consistent with the explanation in the specification, and Fig. 2.

Appropriate correction is required.

Claim Objections

3. Claims 1-20 have been examined.

4. Claims 8-15 objected to because of the following informalities: The examiner suggests that line 3, of claim 8 should be changed to read, "a code segment that generates a list of intercepted methods calls". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Offutt et al, and further in view of Logan, (US 6,601,018).

Regarding claim 1, Offutt teaches a method for ascertaining coverage for a Java application, (see Abstract), comprising the operations of:

- Analyzing the application to determine a plurality of methods comprising the program, (see page 175, col. 1, lines 1-11);
- Exercising the application utilizing a test program that calls methods from the plurality of methods comprising the application, (see page, 176, col. 2);
- Generating a list of methods called by the test program, (see page 177, col. 1);
- Comparing the list of methods called by the test program with the plurality of methods comprising the application, (see page 177, col. 1-2).

Offutt fails to teach that interfacing with the Java application is done through the API of the application, however, the examiner asserts that interfacing with a Java

application through an API, in a test environment, would have been obvious to one of ordinary skill in the art.

By way of example, Logan teaches a method and system for testing a Java application, wherein testing is done through the API of the application, (see col. 7, lines 26-33).

Logan and Offutt are analogous art because they are from the same field of endeavor, viz., component testing of a Java application.

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious to utilize the test coverage method of Offutt in a Java environment comprising the API of Logan.

One of ordinary skill in the art would have been motivated to combine the teachings because Offutt teaches an improved method of testing integrated software, which puts emphasis on testing coupling between two components rather than testing the components themselves, (see page 172, col. 2, and page 173, col. 1). Logan also teaches that it is desirable in the field to allow the developers the opportunity to create smaller, modular software components that can be integrated with existing programs, and do so in a reliable manner, (see col. 1, lines 25-55). One of ordinary

Art Unit: 2114

skill in the art would have been motivated to use the analysis tool of Offutt as an improved means of providing said reliability in the integration described in Logan.

Regarding claim 2, see Offutt, page 177, col. 1, lines 27-29.

Claim 16 is rejected because it recites limitations similar to claim 2, except in the context of a system for ascertaining API coverage.

Regarding claim 17, see Offutt, page 174, col. 2 and page 176, col. 2.

6. Claims 5, 6, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Offutt, in view of Logan, as applied to claim 1 above, and further in view of Glunz, (US 6,523,169).

Regarding claim 5, Offutt-Logan fails to teach a method, as described in reference to claim 1, further comprising the operation of intercepting method calls from the test program utilizing stubs for corresponding methods of the plurality of methods comprising the API.

Art Unit: 2114

Gluntz teaches a method for testing system components of an object-oriented program, comprising intercepting method calls from a test program, utilizing stubs for corresponding methods of the plurality of methods comprising the object-oriented program, (see col. 1, lines 52-57).

Gluntz and Offutt-Logan are analogous art because they are from the same field of endeavor, viz., component testing of object-oriented programs.

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious, in view of Gluntz, to intercept the method calls from the test program of Offutt-Logan, utilizing stubs for corresponding methods of the plurality of methods comprising the API.

One of ordinary skill in the art would have been motivated to combine the teachings because Gluntz shows that the utilization of stubs for handling the method calls of a test program, reduces complexity of the test frame, (see col. 1, lines 48-49). Gluntz further shows that utilizing the stubs provides a means of improving the interaction between a user and a program under test, (see col. 3, lines 5-20). One of ordinary skill in the art would have been motivated to include the stubs of Gluntz in the method of Offutt-Logan, in order to provide these advantages in the analysis tool of Offutt-Logan.

Regarding claim 6, see Offutt, page 177, col. 1, lines 18-23.

Regarding claim 8, Offutt teaches a computer program embodied on a computer readable medium for ascertaining application coverage for a Java application, comprising:

- A code segment that analyzes an application to determine a plurality of methods comprising the application, (see page 175, col. 1, lines 1-11);
- A code segment that intercepts method calls of the plurality of methods comprising the application, (see page, 176, col. 2);
- A code segment that generates a list of intercepted method calls, (see page 177, col. 1); and
- A code segment that compares the list of intercepted method calls with the plurality of methods comprising the application, (see page 177, col. 1-2).

Offutt fails to teach that interfacing with the Java application is done through the API of the application, however, the examiner asserts that interfacing with a Java application through an API, in a test environment, would have been obvious to one of ordinary skill in the art.

Art Unit: 2114

By way of example, Logan teaches a method and system for testing a Java application, wherein testing is done through the API of the application, (see col. 7, lines 26-33).

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious to utilize the test coverage tool of Offutt in a Java environment comprising the API of Logan.

One of ordinary skill in the art would have been motivated to combine the teachings because Offutt teaches an improved tool for testing integrated software, which puts emphasis on testing coupling between two components rather than testing the components themselves, (see page 172, col. 2, and page 173, col. 1). Logan teaches that it is desirable in the field to allow the developers the opportunity to create smaller, modular software components that can be integrated with existing programs, and do so in a reliable manner, (see col. 1, lines 25-55). One of ordinary skill in the art would have been motivated to use the analysis tool of Offutt as an improved means of providing said reliability in the integration described in Logan.

Offutt-Logan fails to teach a program, further comprising a code segment that intercepts method calls utilizing stubs for corresponding methods of the plurality of methods comprising the API.

Gluntz teaches a program for testing system components of an object-oriented program, comprising intercepting method calls from a test program, utilizing stubs for corresponding methods of the plurality of methods comprising the object-oriented program, (see col. 1, lines 52-57).

Gluntz and Offutt-Logan are analogous art because they are from the same field of endeavor, viz., component testing of object-oriented programs.

At the time of applicant's invention, one of ordinary skill in the art would have considered it obvious, in view of Gluntz, to intercept the method calls from the test program of Offutt-Logan, utilizing stubs for corresponding methods of the plurality of methods comprising the API.

One of ordinary skill in the art would have been motivated to combine the teachings because Gluntz shows that the utilization of stubs for handling the method calls of a test program, reduces complexity of the test frame, (see col. 1, lines 48-49). Gluntz further shows that utilizing the stubs provides a means of improving the interaction between a user and a program under test, (see col. 3, lines 5-20). One of ordinary skill in the art would have been motivated to include the stubs of Gluntz in the method of Offutt-Logan, in order to provide these advantages in the analysis tool of Offutt-Logan.

Regarding claim 9, see Offutt, page, 176, col. 2, and page 174, col. 2.

Regarding claim 10, see Offutt, page 177, col. 1, lines 27-29.

Allowable Subject Matter

7. Claims 3, 4, 7, 11-15, and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, 11 and 18, the limitation, "designating the application as portable when the percentage is greater than a predetermined bar percentage," in combination with the other limitations of the claim, was not found in any prior art.

Regarding claim 7, the limitation, "passing the intercepted method calls to corresponding methods of the plurality of methods comprising the API," in combination with the other limitations of the claim, was not found in any prior art.

Art Unit: 2114

Regarding claim 13, the limitation, "passes the intercepted method calls to corresponding methods of the plurality of methods comprising the API," in combination with the other limitations of the claim, was not found in any prior art.

Regarding claim 14, the limitation, "a code segment that reads a deployment descriptor for the application to determine a public interface for the application," in combination with the other limitations of the claim, was not found in any prior art.

Regarding claim 19, the limitation, "logic that designates the application as non-portable when the percentage is less than the predetermined bar percentage," in combination with the other limitations of the claim, was not found in any prior art.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grucci et al, (US 6,766,477 and US 6,604,209), teaches distributed component testing in an enterprise computer system, comprising testing an API in a J2EE environment.

Schwabe, (US 6,651,186), teaches a method and system for ascertaining application program interface coverage for a Java application, wherein a list of methods called by a test program is compared to a plurality of methods comprising the API.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron D Matthew whose telephone number is (571) 272-3662. The examiner can normally be reached on Mon-Fri, from 8:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Aaron D Matthew
Examiner
Art Unit 2114

Application/Control Number: 10/016,834

Page 14

Art Unit: 2114

ADM



SCOTT BADERMAN
PRIMARY EXAMINER